PHENOL 171

8. REFERENCES

- Aaberg RL, Peloquin RA, Strenge DL, et al. 1983. Aquatic-pathway model to predict the fate of phenolic compounds. Prepared for the U.S. Dept of Energy, Pacific Northwest Laboratory, Richland, WA. Available through NTIS, order No. DE 83011074, Springfield, VA.
- *ACGIH. 1991. Documentation of the threshold limit values and biological exposure indices. 6th edition. American Conference of Governmental Industrial Hygienists. Cincinnati, OH. 1204-1208, BEI155-BE1158.
- *ACGIH. 1998. Threshold limit values for chemical substances and physical agents and biological exposure indices. American Conference of Governmental Industrial Hygienists. Cincinnati, OH. 55,103.
- *Achilli G, Cellerino GP, d'Eri1 GM, et al. 1995. Simultaneous determination of 27 phenols and herbicides in water by high-performance liquid chromatography with multi-electrode electrochemical detection. J Chromatogr 697:357-362.
- *Adinolfi M. 1985. The development of the human blood-csf-brain barrier. Dev Med Child Neurol 27:532-537.
- Adlard ER, Milne CB, Tindle PE. 1981. The determination of phenol in urine by enzymatic hydrolysis/headspace gas chromatography. Chromatographia 14:507-509.
- *Ahmed N, Hale K. 1994. A microassay for urinary phenol using capillary gas chromatography and optimised enzymic hydrolysis. Clin Chim Acta 230:201-208.
- *Al-Harazin IM, Nakhla GF, Farooq S. 1991. Start-up of sequencing batch reactors for toxic wastewater treatment. J Environ Sci Health A26:673-687.
- Allen SK, Allen CW. 1997. Phenol concentrations in air and rain water samples collected near a wood preserving facility. Bull Environ Contam Toxicol 59:702-707.
- *Altman PK, Dittmer DS. 1974. Biological handbooks: Biology data book. Volume III, 2nd ed. Bethesda, MD: Federation of American Societies for Experimental Biology, 1987-2008,204l.
- *Amlacher E, Rudolph C. 1981. The thymidine incorporation inhibiting screening system (TSS) to test carcinogenic substances (a nuclear DNA synthesis suppressive short term test). Arch Geschwulstforsch 51:605-610.
- *Amlathe S, Upadhyay S, Gupta VK. 1987. Spectrophotometric determination of trace amounts of phenol in wastewater and biological fluids. Analyst 112:1463-1465.
- *Amoore JE, Hautala E. 1983. Odor as an aid to chemical safety: Odor thresholds compared with threshold limit values and volatilities for 214 industrial chemicals in air and water dilution. J Appl Toxicol 3:272-290.

^{*}Cited in text

PHENOL 172 8. REFERENCES

- Anamura S, Dohi T, Shirakawa M, et al. 1988. Effects of phenolic dental medicaments on prostaglandin synthesis by microsomes of bovine tooth pulp and rabbit kidney medulla. Arch Oral Biol33:355-360.
- *Andersen ME, Krishnan K. 1994. Relating *in vitro* to *in vivo* exposures with physiologically-based tissue dosimetry and tissue response models. In: Salem H, ed. Animal test alternatives. Aberdeen Proving Ground, MD: U.S. Army Chemical Research Development and Engineering Center.
- *Andersen ME, Clewell HJ,III, Gargas ML, et al. 1987. Physiologically-based pharmacokinetics and the risk assessment process for methylene chloride. Toxicol Appl Pharmacol 87:185-205.

Anonymous 1984. Phenol. Chemical and Engineering News. Sept. 24, 1984. p. 11.

Anonymous. 1996. Facts and figures for the chemical industry. Chemical and Engineering News. June 24, 1996. 38-46.

- *APHA/AWWA/WPCF. 1985. Standard methods for the examination of water and wastewater. Method No. 5 lo. Phenols, 16th ed. American Public Health Association, Washington, DC. 556-570.
- *Aranyi C, O'Shea WJ, Graham JA, et al. 1986. The effects of inhalation of organic chemical air contaminants on murine lung host defenses. Fund Appl Toxicol 6:713-720.
- *Artiola-Fortuny J, Fuller WH. 1982. Adsorption of some mono-hydroxybenzene derivatives by soils. Soil Science 133:18-26.
- *ASTM. 1978. Annual book of astm standards part 31, water. Method No. D1783, ASTM, Philadelphia, PA. p. 650-655.
- *Atkinson R, Aschmann SM, Winer AM. 1987. Kinetics of the reactions of NO₃ radicals with a series of aromatic compounds. Environ Sci Techno 21: 1123-1126.
- *ATSDR. 1989. Decision guide for identifying substance-specific data needs related to toxicological profiles. Agency for Toxic Substances and Disease Registry, Division of Toxicology, Atlanta, GA.
- *ATSDR/CDC. 1990. Subcommittee report on biological indicators of organ damage. Agency for Toxic Substances and Disease Registry, Centers for Disease Control and Prevention, Atlanta GA.
- *Babich H, Davis DL. 1981. Phenol: A review of environmental and health risks. Regul Toxicol Pharnacol 1: 90-109.
- Baggett MS, Morie GP. 1973. Quantitative determination of phenol and alkylphenols in cigarette smoke and their removal by various filters. Tobacco Sci 17:30-32.
- *Baj Z, Majewska E, Zeman K, et al. 1994. The effect of chronic exposure to formaldehyde, phenol and organic chlorohydrocarbons on peripheral blood cells and the immune system in humans. J Invest Allergol Clin Immuno14:186-191.
- *Baker EL, Landrigan PJ, Bertozzi PE, et al. 1978. Phenol poisoning due to contaminated drinking water. Arch Environ Health 33:89-94.

*Baker MD, Mayfied CI. 1980. Microbial and nonbiological decomposition of chlorophenols and phenol in soil. Water Air Soil Pollut 13:411-424.

Baker TJ. 1979. The voice of polite dissent: Major electrocardiographic changes during chemical face peeling. Plast Reconstr Surg 63:262ff.

*Baldwin MK, Selby MA, Bloomberg H. 1981. Measurement of phenol in urine by the method of Van Haaften and Sie: A critical appraisal. Analyst 106:763-767.

Ballesteros E, Gallego M, Valcarcel M. 1990. Gas chromatographic determination of phenol compounds with automatic continuous extraction and derivatization. J Chromatogr 518:59-67.

Ballinger LN, Cross SE, Roberts MS. 1995. Availability and mean transit times of phenol and its metabolites in the isolated perfused rat liver: Normal and retrograde studies using tracer concentrations of phenol. J Pharm Pharmacol 47:949-956.

Banna NR, Jabbur SJ. 1970. Increased transmitter release induced by convulsant phenols. Brain Res 20:471-472.

*Barale R, Marrazzini A, Betti C, et al. 1990. Genotoxicity of two metabolites of benzene: Phenol and hydroquinone show strong synergistic effects *in vivo*. Mutat Res 244: 15-20.

*Baranowska-Dutkiewicz B. 1981. Skin absorption of phenol from aqueous solutions in men. Int Arch Occup Environ Health 49:99-104.

*Barnes DG, Dourson M. 1988. Reference dose (RfD): Description and use in health risk assessments. U.S. Environmental Protection Agency. Regul Toxicol Pharmacol 8:471-486.

Beckmann JD, Bartzatt R, Ulphani J, et al. 1995. Phenol sulfotransferase activities and localization in human nasal polyp epithelium. Biochem Biophys Res Commun 2 13: 104-111.

Beckmann JD, Spurzem JF, Rennard SI. 1993. Phenol sulfotransferase expression in the airways: Enzymological and immunohistochemical demonstration. Cell Tissue Research 274:475-485.

*Behl CR, Linn EE, Flynn GL, et al. 1983. Permeation of skin and eschar by antiseptics I: Baseline studies with phenol. J Pharm Sci 72:391-397.

*Beltran FJ, Alvarez P. 1996. Rate constant determination of ozone-organic fast reactions in water using an agitated cell. J Environ Sci Health A31:1159-1178.

*Benet LZ, Kroetz DL, Sheiner LB. 1995. Pharmacokinetics: The dynamics of drug absorption, distribution and elimination. In: Hardman JG, Gilman, AG, Limbird LE, eds. Goodman & Gilman's The pharmacological basis of therapeutics, 9th ed. New York, New York: McGraw Hill.

Benigni R. 1995. Mouse bone marrow micronucleus assay: Relationships with *in vitro* mutagenicity and rodent carcinogenicity. J Toxicol Environ Health 45:337-347.

Bennett IL, James D, Golden A. 1950. Severe acidosis due to phenol poisoning: Report of two cases. Ann Intern Med 32:324-327.

PHENOL 174 8. REFERENCES

- *Berman E, Schlicht M, Moser VC, et al. 1995. A multidisciplinary approach to toxicological screening: I. Systemic toxicity. J Toxicol Environ Health 45:127-143.
- *Bernardini G, Spinelli 0, Presuitti C, et al. 1996. Evaluation of the developmental toxicity of the pesticide MCP and its contaminants phenol and chlorocresol. Environ Toxicol Chem 15:754-760.
- *Beveridge T. 1997. Haze and cloud in apple juices. Crit Kev Food Sci Nutr 37:75-91.
- *Bieniek G. 1994. Concentrations of phenol, o-cresol, and 2,5-xylenol in the urine of workers employed in the distillation of the phenolic fraction of tar. Occup Environ Med 51:354-356.
- *Bieniek G, Wilczok T. 1986. Separation and determination of phenol, a-naphthol, *m* and *p*-, *o*-cresols and 2,5-xylenol and catechol in the urine after mixed exposure to phenol, naphthalene, cresols and xylenols. Br J Ind Med 43:570-571.
- Birkett AM, Jones GP, Muir JG. 1995. Simple high-performance liquid chromatographic analysis of phenol and p-cresol in urine and feces. J Chromatogr 674: 187-191.
- *Blaber IX, Gallagher JP. 197 1. The facilitatory effects of catechol and phenol at the neuromuscular junction of the cat. Neuropharmacol 10:153-159.
- Bleehan SS, Pathak MA, Hori Y, et al. 1968. Depigmentation of the skin with 4-isopropylcatechol, mercaptoamines and other compounds. J Invest Derm. 50:103ff.
- Bock KW, Schirmer G, Green MD, et al. 1988. Properties of 3-methylcholanthrene-inducible phenol UDP-glucuronosyltransferase from rat liver. Biochem Pharmacol 37: 1439-1443.
- *Bois FY, Smith MT, Spear RC. 1991. Mechanisms of benzene carcinogenesis: Application of a physiological model of benzene pharmacokinetics and metabolism. Toxicol Lett 56:283-298.
- *Boutwell RK, Bosch DK. 1959. The tumor-promoting action of phenol and related compounds for mouse skin. Cancer Res 19:413-424.
- *Boyd SA. 1982. Adsorption of substituted phenols by soil. Soil Science 134:337-343.
- *Boyd SA, Shelton DR, Berry D, et al. 1983. Anaerobic biodegradation of phenolic compounds in digested sludge. Appl Environ Microbial 46:50-54.
- Brancato DJ. 1982. Recognizing potential toxicity of phenol. Vet Hum Toxicol 24:29-30.
- Branson DR. 1978. Predicting the fate of chemicals in the aquatic environment from laboratory data. ASTM Spec Tech Pub1 657. American Society for Testing and Materials, Philadelphia, PA., 55-70.
- Bray HG, Thorpe WV. 1954. Analysis of phenolic compounds of interest in metabolism. Methods Biochem Anal 1:1-52.
- *Briggs GG. 1981. Theoretical and experimental relationships between soil adsorption, octanol-water partition coefficients, water solubilities, bioconcentration factors and the parachor. J Agric Food Chem 29:1050-1059.

PHENOL 175 8. REFERENCES

*Brodzinsky R, Singh HB. 1982. Volatile organic chemicals in the Environmental Sciences Research Lab atmosphere: An assessment of available data. Prepared under Contract No. 68-02-3452 for U.S. Environmental Protection Agency, ESRL, ORD, Research Triangle Park, NC, 16-18.

*Bronstein AC, Currance PL. 1988. Emergency care for hazardous materials exposure. Washington, DC: CV Mosby Company, 201-202.

Brooks JD, Riviere JE. 1996. Quantitative percutaneous absorption and cutaneous distribution of binary mixtures of phenol and para-nitrophenol in isolated perfused porcine skin. Fundam Appl Toxicol 32:233-243.

Brown AM, Kaplan LM, Brown ME, et al. 1960. Phenol induced histological skin changes: Hazards, technique and uses. Br J Plast Surg 13:158-169.

*Brown VKH, Box VL, Simpson BJ. 1975. Decontamination procedures for skin exposed to phenolic substances. Arch Environ Health 30:1-6.

*Bruce RM, Santodonato J, Neal MW. 1987. Summary review of the health effects associated with phenol. Toxicol Ind Health 3:535-568.

Bruze, M. 1986. Sensitizing capacity of 2-methylol phenol, 4-methylol phenol and 2,4,6-trimethylol phenol in the guinea pig. Contact Dermatitis 14:32-38.

*Budavari S, O'Neil MJ, Smith A, et al. eds. 1989. The Merck index, 11th ed. Rahway, NJ: Merck & Co., Inc., 7206.

*Bulsiewicz H. 1977. The influence of phenol on chromosomes of mice (Mus musculus) in the process of spermatogenesis. Folia Morph01 (Warsaw) 36:13-22.

*CA EPA 1998. USEPA/OPP Pesticide related database queries: OPP's registered and cancelled pesticide product database. California Environmental Protection Agency. Internet: http://www.cdpr.ca.gov/docs/epalepamenu.htm. Accessed on Nov. 6, 1998.

Call DJ, Brooke LT, Lu PY. 1980. Uptake and elimination and metabolism of three phenols by fathead minnows. Arch Environ Contam Toxicol 9:699-714.

*Campbell N, Van loon JA, Weinshilboum RM. 1987. Human liver phenol sulfotransferase: Assay conditions, biochemical properties and partial purification of isozymes of the thermostable form. Biochem Pharmacol36:1435-1446.

*Capel ID, French MR, Millbum P, et al. 1972. Fate of [14C]-phenol in various species. Xenobiotica 2:25-34.

Carlotto RC, Peters WJ, Neligan PC, et al. 1996. Chemical bums. Can J Surg 39:205-211.

Carter WPL, Winer AM, Pitts JN, Jr. 1981. Major atmospheric sink for phenol and the cresols. Reaction with the nitrate radical. Environ Sci Technol 15:829-831.

PHENOL 176 8. REFERENCES

- *Cassidy MK, Houston JB. 1984. 1n viva capacity ofhepatic and extra hepatic enzymes to conjugate phenol. Drug Metab Dispos 12:619-624.
- *Cataldo DA, Bean RM, Fellow RJ. 1987. Uptake and fate of phenol aniline and quinoline in terrestrial plants In: Gray RH, et al., ed. Health and Environmental Research on Complex Organic Mixtures. Conf-85lo27, NTIS 631-641.
- *CCRIS. 1998. Chemical Carcinogenesis Research Information System. National Library of Medicine, National Toxicology Information Program, Bethesda, MD. May 11, 1998.
- *Chen CS, Zoltek J Jr. 1995. Organic priority pollutants in wetland-treated leachates at a landfill in central Florida. Chemosphere 31:3455-3464.
- *Chen H, Eastmond DA. 1995a. Synergistic increase in chromosomal breakage within the euchromatin induced by an interaction of the benzene metabolites phenol and hydroquinone in mice. Carcinogenesis 16:1963-1969.
- Chen H, Eastmond DA. 1995b. Topoisomerase inhibition by phenolic metabolites: A potential mechanism for benzene's clastogenic effects. Carcinogenesis 16:2301-2307.
- Chen S, Zhu H, Wetzel WJ, et al. 1996. Spontaneous melanocytosis in transgenic mice. J Invest Dermatol 106:1145-1151.
- *Ciranni R, Barale R, Marrazzini A, et al. 1988. Benzene and the genotoxicity of its metabolites. I. Transplacental activity in mouse fetuses and in their dams. Mutat Res 208:61-67.
- *Clark TP, Piskin R. 1977. Chemical quality and indicator parameters for monitoring landfill leachate in Illinois. Environmental Geology 1:329-340.
- *Clewell HJ, III, Andersen ME. 1985. Risk assessment extrapolations and physiological modeling. Toxicol IndHealth 1:111-113.
- *CMR. 1996. Olefin stocks low as PE sales surge. Chemical Marketing Reporter. 250:7.
- *Coan ML, Baggs RB, Bosmann HB. 1982. Demonstration of direct toxicity of phenol on kidney. Res Commun Chem Pathol Pharmacol 36:229-239.
- *Cole RH, Frederick RE, Healy RP, et al. 1984. Preliminary findings of the priority pollutant monitoring project of the nationwide urban runoff program. J Water Pollut Contr Fed 56:898-908.
- *Conning DM, Hayes MJ. 1970. The dermal toxicity of phenol: An investigation of the most effective first-aid measures. Br J Ind Med 27:155-159.
- Constan AA, Yang RSH, Baker DC, et al. 1995. A unique pattern of hepatocyte proliferation in F344 rats following long-term exposures to low levels of a chemical mixture of groundwater contaminants. Carcinogenesis 16:303-310.
- *Crawford DW, Bonnevie NC, Wenning RJ. 1995. Sources of pollution and sediment contamination in Newark Bay, New Jersey. Ecotoxicol Environ Safety, 30:85-100.

PHENOL 177 8. REFERENCES

- *Crebelli R, Conti G, Carere A. 1987. On the mechanism of mitotic segregation induction in *Aspergillus nidulans* by benzene hydroxy metabolites. Mutagenesis 2:235-238.
- *Cronin TD, Brauer RO. 1949. Death due to phenol contained in foille. JAMA 139:777-778.
- *Cronn DIR, Charlson RJ, Knights RL, et al. 1977. A survey of the molecular nature of primary and secondary components of particles in urban air by high-resolution mass spectrometry. Atmos Environ 11:929-937.
- *CT Bureau Air Manage. 1998 Hazardous air pollutant. Connecticut Bureau of Air Management, Departement of Environmental Protection. Reg. 22a-174.
- Cupitt LT. 1980. Fate of toxic and hazardous materials in the air environment. Prepared for U.S. Environmental Protection Agency. NTIS PB80-22 1948.
- *Dalhamn T, Lagerstedt B. 1966. Ciliostatic effect of phenol and resorcinol. Arch Otolaryng 84:325-328.
- *Dalin NM, Kristoffersson R. 1974. Physiological effects of a sublethal concentration of inhaled phenol on the rat. Ann Zoo1 Fenn 11:193-199.
- Dauble DD, Carlile DW, Hanf RW, Jr. 1986. Bioaccumulation of fossil fuel components during single-compound and complex-mixture exposures of *Duphnia magna*. Bull Environ Contam Toxicol 37:125-132.
- Daum F, Cohen MI, McNamara H, et al. 1976. Experimental toxicologic studies on a phenol detergent associated with neonatal hyperbilirubinemia. J Pediatr 89:853-854.
- *Davies MI, Lunte CE. 1996. Simultaneous microdialysis sampling from multiple sites in the liver for the study of phenol metabolism. Life Sci 59:1001-1013.
- *Davis EM, Murray HE, Liehr JG, et al. 1981 I Basic microbial degradation and chemical byproducts of selected organic compounds. Water Res 15: 1125-1127.
- DeBono R, Laitung G. 1997. Phenolic household disinfectants: Further precautions required. Burns 23:182-185.
- *De Ceaurriz JC, Micillino JC, Bonnet P, et al. 1981. Sensory irritation caused by various industrial airborne chemicals. Toxicol Lett (Amst) 9:137-144.
- *Deichmann WB. 1944. Phenol studies. V. The distribution, detoxification, and excretion of phenol in the mammalian body. Arch Biochem 3:345-355.
- *Deichmann WB, Keplinger ML. 1981. Phenols and phenolic compounds. In: Clayton GD, Clayton FE, eds. Patty's industrial hygiene and toxicology, 3rd ed. New York, NY: John Wiley and Sons, Inc, 2567-2627.
- *Deichmann WB, Wither-up S. 1944. Phenol studies. VI: The acute and comparative toxicity of phenol and o-, *m*-, and *p*-cresols for experimental animals. J Pharmacol Exp Ther 80:233-240.

PHENOL 178 8. REFERENCES

- *Deichmann WB, Kitzmiller KV, Witherup BS. 1944. Phenol studies. VU. Chronic phenol poisoning, with special reference to the effects upon experimental animals of the inhalation of phenol vapor. Am J Clin Pathol 14:273-277.
- *Delaney JL, Hughes TW. 1979. Source Assessment: Manufacture of Acetone and Phenol from Cumene. Prepared by Monsanto Research Corp., Dayton, OH. EPA- 600/2-79-019D. NTIS PB80-150592, 500.]
- *Delfino JJ, Dube DJ. 1976. Persistent contamination of ground water by phenol. J Environ Sci Health Al 1:345-355.

Della Pietra G, Illiano G, Soscia M. 1967. Glycuronic acid and glycuronamide detoxicating activity. Biochem Pharmacol 16: 1571-1573.

- *Demerec M, Bertran G, Flint J. 1951. A survey of chemicals for mutagenic action on E. coli. American Naturalist 85:119-136.
- *Di Corcia A, Bellioni A, Madbouly MD, et al. 1996. Trace determination of phenols in natural waters. Extraction by a new graphitized carbon black cartridge followed by liquid chromatography and re-analysis after phenol derivatization. J Chromatogr 733:383-393.

Dmytryshin JR, Gribble MJ, Kassen BP. 1983. Chemical face peel complicated by toxic shock syndrome. Arch Otolaryngol lo9-170ff.

- *Doan HM, Keith L, Shennan AT. 1979. Phenol and neonatal jaundice. Pediatrics 64:324-325.*Dosemeci M, Blair A, Stewart PA, et al. 1991. Mortality among industrial workers exposed to phenol. Epidemiology 2:188-193.
- *Douglas CC. 1972. Gas chromatographic determination of phenolic compounds in drug preparations: Collaborative study. J Assoc Off Anal Chem 55:610 612.

Draper WM, Crosby DG. 1983. The photochemical generation of hydrogen peroxide in natural waters. Arch Environ ContamToxicol 12:121-126.

Ducis I, Norenberg L-OB, Norenberg MD. 1990. Effect of phenol and sodium octanoate on the astrocyte benzodiazepine receptor. Brain Res 5 14:349-351.

Dufek P, Cernohorsky I, Pacakova V. 1982. Gas chromatography as a tool for the study of the products of photosensitized phenol decomposition. J Chromatogr 241:19-28.

- *Dumont JP, Adda J. 1978. Occurrence of sesquiterpenes in mountain cheese volatiles. J Agric Food Chem 26:364-367.
- *Eastmond DA, Smith MT, Ruzo lo, et al. 1986. Metabolic activation of phenol by human myeloperoxidase and horseradish peroxidase. Mol Pharmacol 30:674-679.
- *Edwards VT, Jones BC, Hutson DH. 1986. A comparison of the metabolic fate of phenol, phenyl glucoside and phenyl 6-0-malonyl-glucoside in the rat. Xenobiotica 16:801-807.

PHENOL 179 8. REFERENCES

- *Ehrlich GG, Goelitz DF, Godsy EM, et al. 1982. Degradation of phenolic contaminants in ground water by anaerobic bacteria: St. louis Park, MN. Ground Water 20:703-710.
- *Eichelberger JW, Kerns EH, Olynyk P, et al. 1983 c Precision and accuracy in the determination of organics in water by fused silica capillary column gas chromatography/mass spectrometry and packed column gas chromatography/mass spectrometry. Anal Chem 55: 1471-1479.
- Eisenreich SJ, looney BB, Thornton JD. 1981. Airborne organic contaminants in the Great Lakes ecosystem. Environ Sci Technol 15:30-38.
- Eisert R, Karsten L. 1996. Solid-phase microextraction coupled to gas chromatography: A new method for the analysis of organics in water. J Chromatogr 733:143-157.
- *Elder VA, Proctor BL, Hites RA. 1981. Organic compounds found near dump sites in Niagara Falls, NY. Environ Sci Technol 15:1237-1243.
- *Ellenhorn MJ, Barceloux DG. 1988. Medical toxicology-diagnosis and treatment of human poisoning. New York, NY: Elsevier, 951-952.
- *EPA. 1980. Ambient water quality criteria document for phenol. Prepared by the U.S. Environmental Protection Agency, Office of Health and Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH for the Office of Water Regulations and Standards, Washington, DC. EPA 440/5-80-001A. NTIS PB81-117772.
- *EPA. 1981. Treatability manual. The U.S. Environmental Protection Agency, Washington, DC.: Office of Research and Development. EPA 600/2-82-001A, I.S. 1-1 TO 1-5.
- *EPA. 1982. Test methods. Methods for organic chemical analysis of municipal and industrial wastewater. Method No. 604 and 625. U.S. Environmental Protection Agency. Environmental Monitoring and Support Laboratory, U.S. EPA, Cincinnati, OH.
- *EPA. 1986a. Research and development. Reference values for risk assessment. Prepared by the U.S. Environmental Protection Agency. Environmental Criteria and Assessment Office, Office of Health and Environmental Assessment, Cincinnati, OH, for the Office of Solid Waste.
- *EPA. 1986b. Test methods for evaluating solid waste. SW-846, Vol. IB: Laboratory manual: Physical/chemical methods. 3rd ed., Method Nos. 8250 and 8270, U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, U.S. EPA, Washington, DC.
- *EPA. 1987. Health and environmental effects profile for phenol. Prepared by the U.S. Environmental Protection Agency. Environmental Criteria and Assessment Office, Office of Health and Environmental Assessment, Cincinnati, OH, for the Office of Solid Waste and Emergency Response.
- *EPA. 1988a. Analysis of Clean Water Act effluent guidelines pollutants. Summary of the Chemical Regulated by Industrial Point Source Category. 40 CFR Parts 400-475. Draft. Prepared by the U.S. Environmental Protection Agency. Industrial Technology Division (WH 552), Office of Water Regulations and Standards, Office of Water, Washington, D.C.

PHENOL 180 8. REFERENCES

- *EPA. 1988b. Computer printout (CIS): 1977 production statistics for chemicals in the Federal Register. 1979. Petition to remove ethylbenzene, phenol, 2,4-dichlorophenol, 2,4,5- trichlorophenol and pentachlorophenol from the 307(a)(l) list of toxic pollutants. U.S. Environmental Protection Agency. Fed Reg 44:64555-64559.
- *EPA. 1988c. STORET Database. On-line: September 1988. U.S. Environmental Protection Agency. Washington, DC: U.S. EPA.
- *EPA. 1990. Interim methods for development of inhalation reference doses. U.S. Environmental Protection Agency. EPA-600/890/066A.
- *EPA. 1994a. Semivolatile organic compounds by gas chromatography/mass spectrometry. Method 8250A. In: Test methods for evaluating solid waste. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- *EPA. 1994b. Semivolatile organic compounds by gas chromatography/mass spectrometry: Capillary column technique. Method 8270B. In: Test methods for evaluating solid waste. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- *EPA. 1996a. Drinking water regulations and health advisories. U.S. Environmental Protection Agency, Office of Water, Washington, DC. EPA 822-R-96-001.
- *EPA. 1996b. Semivolatile organic compounds by gas chromatography/mass spectrometry. Method 8270C. In: Test methods for evaluating solid waste. SW-846. Washington, DC: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response.
- *EPA. 1998a. Designation of hazardous substances. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 116.4.
- *EPA. 1998b. Designation of hazardous substances. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 302.4.
- *EPA. 1998c. Toxic chemical release reporting: Community right-to-know. U.S. Environmental Protection Agency. Code of Federal Regulations. 40 CFR 372.
- *Erexson GL, Wilmer JL, Kligerman AD. 1985. Sister chromatid exchange induction in human lymphocytes exposed to benzene and its metabolites *in vitro*. Cancer Res 45:2471-2477.
- *FDA. 1998a. Everything added to food in the United States. Food and Drug Administration, http://vm.cfsan.fda.gov/-dms/eafus.html. Accessed on Nov. 22, 1998.
- *FDA. 1998b. Indirect food additives: Adhesives and components of coatings. Food and Drug Administration. Code of Federal Regulations. 21 CFR 175 subsections 300, 380, and 390.
- *FDA. 1998c. Indirect food additives: Paper and paperboard components. Food and Drug Administration. Code of Federal Regulations. 21 CFR 176.170.
- *FDA. 1998d. Indirect food additives: Polymers. Food and Drug Administration. Code of Federal Regulations. 21 CFR 177 subsections 1210, 1580, 2410, and 2600.

PHENOL 181 8. REFERENCES

- *Fielding M, Gibson TM, James HA, et al. 1981. Organic micropollutants in drinking water. TR-159. Medmenham, Eng.: Water Res Centre.
- *Flickinger CW. 1976. The benzenediols: Catechol, resorcinol and hydroquinone A review of the industrial toxicology and current industrial exposure limits. Am Ind Hyg Assoc J 37:596-606.
- *Florin I, Rutberg L, Curvall M, et al. 1980. Screening of tobacco smoke constituents for mutagenicity using the Ames' test. Toxicology 18:219-232.
- Folsom BR et al. 1990. Phenol and trichloroethylene degradation by *Pseudomonoas cepacia* G4: Kinetics and interactions between substrates. Appl Environ Microbial 56:1279-1285.
- *Foman SJ. 1966. Body composition of the infant. Part I: The male reference infant. In: Falkner F, ed. Human development. Philadelphia, PA: WB Saunders, 239-246.
- *Fornan SJ, Haschke F, Ziegler EE, Nelson SE. 1982. Body composition of reference children from birth to age lo years. Am J Clin Nutr 35:1169-1175.
- Forrest T. 1987. Ramage DTO cardiac disrhythmia after subtrigonal phenol. Anesthesia 42:777-778.
- *Forum for Scientific Excellence, Inc. 1990. Index of hazardous contents of commercial products in schools and colleges. Philadelphia, Pennsylvania: JB Lippincott Co., 97, 109, 110, 145, 179.
- *Foxall PJD, Bending MR, Gartland KI, et al. 1989. Acute renal failure following accidental cutaneous absorption of phenol: Application of NMR urinalysis to monitor the disease process. Human Toxicol 9:491-496.
- *Freitag D, Lay JP, Korte F. 1984. Environmental hazard Test results as related to structures and transplantation into the environment. In: Kaiser, KLE, Ed. QSAR Environ Toxicol Proc Workshop Quant Struct Act Relat. Boston, MA: D. Reidel Publishing Co., 111-136.
- *French MR, Bababunmi EA, Golding RR et al. 1974. The conjugation of phenol, benzoic acid, I-naphthylacetic acid and sulfadimethoxine in the lion, civet, and genet. FEBS Lett 46:134-137.
- FSTRAC. 1990. Summary of state and federal drinking water standards and guidelines. Prepared by chemical communication subcommittee. Federal State Toxicology and Regulatory Alliance Committee.
- *Fuhro R, Fromm D. 1978. Effects of compounds chemically related to salicylate on isolated antral mucosa of rabbits. Gastroenterology 75:661-667.
- *Gardner W, Cooke EI, Cooke RWI. 1978. Handbook of chemical synonyms and trade names. Boca Raton, FL: CRC Press, 150,554.
- Geibler A, Scholer HF. 1994. Gas chromatographic determination of phenol, methylphenols, chlorophenols, nitrophenols, and nitroquinones in water. Water Research 28:2047-2053.
- *Ghantous H, Danielsson BR. 1986. Palcental transfer and distribution of toluene, xylene and benzene, and their metabolites during gestation in mice. Biol Res Pregnancy Perinatol 7:98-105.

PHENOL 182 8. REFERENCES

- *Gocke E, King MT, Eckhardt K, et al. 1981. Mutagenicity of cosmetics ingredients licensed by the European communities. Mutat Res 90:91-109.
- *Goerlitz DF, Troutman DE, Gody EM, et al 1985. Migration of wood-preserving chemical in contaminated groundwater in a sand aquifer at Pensacola, Florida. Environ Sci Technol 19:955-961.
- *Gossett RW, Brown DA, Young DR. 1983. Predicting the bioaccumulation of organic compounds in marine organisms using octanol/water partition coefficients. Marine Pollut Bull 14:387-392.
- Gould JP, Weber WJ, Jr. 1976. Qxidation of phenols by ozone. J Water Pollut Control Fed 48:47-60.
- *Graedel TE. 1978. Chemical compounds in the atmosphere. New York, NY Academic Press, 256.
- *Griffiths GJ. 1973. Fatal acute poisoning by intradermal absorption of phenol. Med Sci Law 13:46-48.
- *Gross BG. 1984. Cardiac arrhythmias during phenol face peeling. Plastic Reconst Surg 73:590-594.
- *Guerin MR, Jenkins RA, Tomkins BA. 1992. The chemical nature of environmental tobacco smoke: Composition and measurement. Chelsea, MD: Lewis Publishers.
- *Gut I, Nedelcheva V, Soucek P, et al. 1996. Cytochromes P450 in benzene metabolism and involvement of their metabolites and reactive oxygen species in toxicity. Environ Health Perspect 104: 1211 12 18.
- *Guzelian PS, Henry CJ, Olin SS. 1992. Similarities and differences between children and adults:Implications for risk assessment. Washington, DC: International Life Sciences Institute Press.
- Haddad LM, Dimond KA, Schweistris JE, et al. 1979. Phenol poisoning. J Am Coll Emerg Phys 8:267-269.
- *Haider K, Jagnow G, Kohnen R, et al. 1974. [Degradation of chlorinated benzol, phenol and cyclohexane derivatives by soil bacteria that utilize benzol and phenol under aerobic conditions.] Arch Microbial 96: 183-200. (German)
- *Handson PD, Hanrahan PD. 1983. A rapid gas chromatographic method for the determination of free phenol in blood. J Agric Food Chem 31:447-448.
- Hardy JT, Dauble DD, Felice LJ. 1985. Aquatic fate of synfuel residuals: Bioaccumulation of aniline and phenol by the freshwater phytoplankton *Scenedesmus* quadricauda. Environ Toxicol Chem 4:29-35.
- *Hawley GG. 1981. The condensed chemical dictionary. loth ed. New York, NY: Van Nostrand Reinhold Co, 796.
- *Haworth S, Lawler T, Mortelmans K, et al. 1983. *Salmonella* mutagenicity test results for 250 chemicals. Environ Mutagen Suppl 1:3-142.
- *Hawthorne SB, Sievers RE. 1984. Emission of organic air pollutants from shale oil wastewaters. Environ Sci Technol 18:483-490.

PHENOL 183 8. REFERENCES

*HazDat. 1998. Hazardous substance database. Agency for Toxic Substances and Disease Registry, Atlanta, GA.

*Healy JB Jr, Young LY. 1978. Catechol and phenol degradation by a methanogenic population of bacteria. Food Microbial Toxicol 35:216-218.

Healy JB Jr, Young LY. 1979. Anaerobic biodegradation of eleven aromatic compounds to methane. Appl Environ Microbial 38:84-89.

*Heikkila PR, Hameila M, Pyy L, et al. 1987. Exposure to creosote in the impregnation and handling of impregnated wood. Stand J Work Environ Health 13:431-437.

*Heller VG, Pursell L. 1938. Phenol-contaminated waters and their physiological action. J Pharmacol Exp Ther 63:99-107.

Hendrickson HP, Sahafayan M, Bell MA, et al. 1994. Relationship of flavonoid oxidation potential and effect on rat hepatic microsomal metabolism of benzene and phenol. J Pharm Biomed Anal 12:335-341.

*Hendry DG, Kenley RA. 1979. Atmospheric reaction products of organic compounds. Report to U.S. EPA, Office of Chemical Control, Office of Toxic Substances, Washington, DC, by SRI International, Menlo Park, CA, 20,46.

Henschler R, Glatt HR. 1995. Induction of cytochrome P4501A1 in haemopoietic stem cells by hydroxylated metabolites of benzene. Toxicol *In vitro* 9:453-457.

Heroux JA, Falany CN, and Roth JA. 1989. Immunological characterization of human phenol sulfotransferase. Mol Pharmacol 36:29-33.

Hine J, Mookerjee PK. 1975. The intrinsic hydrophilic character of organic compounds. Correlations in terms of structural contributions. J Org Chem 40:292-298.

*Hinkel Von GK, Kintzel HW. 1968. Phenolvergiftungen bei neugeborenen durch kutane resorption. Dtsch Gesundheitsw 23:2420-2422.

*Ho C, Lee KN, Jin QZ. 1983. Isolation and identification of volatile flavor compounds in fried bacon. J Agric Food Chem 31:336-342.

*Hoff RM, Chan K. 1987. Measurement of polycyclic aromatic hydrocarbons in the air along the Niagara River. Environ Sci Technol 21:556-561.

Hoffmann D, Brunnemann KD, Gori GB, et al. 1975. On the carcinogenicity of marijuana smoke. Recent Adv Phytochem 9:63-81.

*Holland AJ, Youssef M. 1978. A complication of subarachnoid phenol blockade. Anaesthesia 34:260-262.

*Horch R, Spilker G, Stark GB, 1994. Phenol burns and intoxications, Burns 20:45-50.

PHENOL 184 8. REFERENCES

- *Hoshika Y, Nihei Y, Muto G. 1981. Pattern display for characterization of trace amounts of odorants discharged from nine odor sources. Analyst (london) 106: 1187-1202.
- *Hotchkiss SAM, Hewitt P, Caldwell J. 1992. Percutaneous absorption of nicotinic acid, phenol, benzoic acid and triclopyr butoxyethyl ester through rat and human skin *in vitro*: Further validation of an *in vitro* model by comparison with *in vivo* data. Food Chem Toxicol 30:891-899.
- *HSDB. 1997. Hazardous Substances Data Bank. National Library of Medicine, National Toxicology Information Program, Bethesda, MD.
- *HSDB. 1998. Hazardous Substances Data Bank. National Library of Medicine, National Toxicology Information Program, Bethesda, MD.
- *Hsieh G-C, Sharma RP, Parker RDR, et al. 1992. Immunological and neurobiochemical alterations induced by repeated oral exposure of phenol in mice. Eur J Pharmacol 228:107-114.
- *Hughes MF, Hall LL. 1995. Disposition of phenol in rat after oral, dermal, intravenous, and intratracheal administration. Xenobiotica 25:873-883.
- *Humphrey MJ, Filer CW, Jeffery DJ, et al. 1980. The availability of carfecillin and its phenol moiety in rat and dog. Xenobiotica 10:771-778.
- *Hunter DM, Timerding BL, Leonard RB, et al. 1992. Effects of isopropyl alcohol, ethanol, and polyethylene glycoVindustria1 methylated spirits in the treatment of acute phenol burns. Ann Emerg Med 21:1303-1307.
- *IARC. 1986. IARC Monographs on the evaluation of the carcinogenic risk of chemicals to humans. Vol. 38. Tobacco smoking. International Agency for Research on Cancer, Lyon, France: World Health Organization, 104-105.
- *IARC. 1989. IARC Monographs on the evaluation of carcinogenic risk of chemicals to humans, Vol47; Some organic solvents, resin monomers and related compounds, pigments and occupational exposures in paint manufacturing and painting. International Agency for Research on Cancer, Lyon, France: World Health Organization, 263-287.
- Ikeda M, Ohtsuji H. 1969. Hippuric acid, phenol, and tricholoacetic acid levels in the urine of Japanese subjects with no known exposure to organic solvents. Br J Ind Med 26:162-164.
- IRIS. 1996. Integrated Risk Information System. U.S. Environmental Protection Agency, Office of Health Environmental Assessment, Environmental Criteria and Assessment Office, Cincinnati, OH.
- *IRIS. 1998. Integrated Risk Information System. U.S. Environmental Protection Agency, Office of Health Environmental Assessment, Washington, DC. May 11, 1998.
- Isaacson PU, Frink CR. 1984. Nonreversible sorption of phenolic compounds by sediment fractions: The role of sediment organic matter. Environ Sci Technol 18:43-48.
- Ito K, Nishitani K, Hara I, et al. 1968. A study of cases of leucomelanodermatosis due to phenyl-phenol compounds. Bull Pharm Res Inst 76:5-13.

PHENOL 185 8. REFERENCES

- *Itoh M. 1995. The role of brain acetylcholine in phenol-induced tremor in mice. Arch Oral Biol40:365-372.
- *Iwasaki IS, Shiraga T, Takeshita K, et al. 1993. Perinatal development of amine, alcohol and phenol sulfoconjugations in the rat. Res Commun Chem Pathol Pharmacol 81:183-190.
- *Jansson T, Curvall M, Hedin A, et al. 1986. In vitro studies of biological effects of cigarette smoke condensate. H. Induction of sister chromatid exchanges in human lymphocytes by weakly acidic, semivolatile constituents. Mutat Res 169:129-139.
- *Jay K, Stieglitz L. 1995. Identification and quantification of volatile organic components in emissions of waste incineration plants. Chemosphere 30:1249-1260.
- *Johanson CE. 1980. Permeability and vascularity of the developing brain: Cerebellum vs cerebral cortex. Brain Res 190:3-16.
- *Jones-Price C, Ledoux TA, Reel JR, et al. 1983a. Teratologic evaluation of phenol (CAS No. lo8-95-2) in CD-1 rats. Research Triangle Park, NC: Research Triangle Institute.
- *Jones-Price C, Ledoux TA, Reel JR, et al. 1983b. Teratologic evaluation of phenol (CAS No. lo8-95-2) in CD mice. Laboratory study: September 18, 1980 to January 12, 1981. Research Triangle Park, NC: Research Triangle Institute.
- *Jungclaus GA, lopez-Avila V, Hites RA. 1978. Organic compounds in an industrial waste water: A case study of their environmental impact. Environ Sci Technol 12:88-96.
- Kahn G. 1970. Depigmentation caused by phenolic detergent germicides. Arch Dermatol 102:177-187.
- *Kaiser HE. 1967. Cancer-promoting effects of phenols in tea. Cancer 20:614-616.
- Kameya T, Murayama T, Kitano M, et al. 1995. Testing and classification methods for the biodegradabilities of organic compounds under anaerobic conditions. Sci Total Environ 170:31-41.
- *Kao J, Bridges JW, Faulkner JK. 1979. Metabolism of [14C]phenol by sheep, pig, rat. Xenobiotica 9:141-147.
- *Kauppinen TP, Partanen TJ, Nurminen MM. 1986. Respiratory cancers and chemical exposures in the wood industry: A nested case-control study. Br J Ind Med 43:84-90.
- Kavlock RJ. 1990. Structure-activity relationships in the developmental toxicity of substituted phenols: in vivo effects. Teratology 41:43-59.
- Kawamoto T, Koga M, Oyama T, et al. 1996. Habitual and genetic factors that affect urinary background levels of biomarkers for organic solvent exposure. Arch Environ Contam Toxicol 30:114-120.
- *Keith LH. 1976. Identification of organic compounds in unbleached treated Kraft paper mill wastewaters. Environ Sci Technol 10:555-564.

PHENOL 186 8. REFERENCES

- *Kenyon EM, Seeley ME, Janszen D, et al. 1995. Dose-, route-, and sex-dependent urinary excretion of phenol metabolites in B6C3F₁ mice. J Toxicol Environ Health 44:219-233.
- *Kim D-H, Lee S-K, Chun B-Y, et al. 1994. Illness associated with contamination of drinking water supplies with phenol. J Korean Med Sci 9:218-223.
- Kim HJ, Cho JH, Klaassen CD. 1995. Depletion of hepatic 3'-phosphoadenosine 5'-phosphosulfate (PAPS) and sulfate in rats by xenobiotics that are sulfated. J Pharmacol Exp Ther 275:654-658.
- *Kincannon DF, Stover EL, Nichols V, et al. 1983. Removal mechanisms for toxic priority pollutants. 3 Water Pollut Control Fed 55:157-163.
- Knoevenagel K, Himmelreich R. 1976. Degradation of compounds containing carbon atoms by photooxidation in the presence of water. Arch Environ Contam Toxicol 4:324-333.
- *Kobayashi K, Akitake H, Manadge K. 1979. Relation between toxicity and accumulation of various chlorophenols in goldfish. Bull Jap Sot Scien Fish 45:173-175.
- Kociba RJ, Kalnins RV, Wase CE, et al. 1976. Elevated urinary phenol levels in beagle dogs treated with salol. AmIndHygAssocJ37:183, 191.
- *Komori M, Nishio K, Kitada M, et al. 1990. Fetus-specific expression of a form of cytochrome P-450 in human liver. Biochemistry 29:4430-4433.
- *Konasewich D, Traversy W, Zar H. 1978. Status report on organic and heavy metal contaminants in the Lake Erie, Michigan, Huron and Superior Basins, Great Lakes Water Quality Board, Windsor, Ontario, 161.
- *Koster H, Halsema I, Scholtens E, et al. 1981. Dose-dependent shifts in the sulfation and glucuronidation of phenolic compounds in the rat *in vivo* and in isolated hepatocytes. The role of saturation of phenolsulfotransferase. Biochem Pharmacol 30:2569-2575.
- *Kostiainen R. 1995. Volatile organic compounds in the indoor air of normal and sick houses. Atmos Environ 29:693-702.
- Krijgsheld KR, Scholtens E, Julder GJ. 1981. An evaluation of methods to decrease the availability of inorganic sulfate for sulfate conjugation in the rat *in vivo*. Biochem Pharmacol 39:1973-1979.
- *Krishnan K, Andersen ME. 1994. Physiologically-based pharmacokinetic modeling in toxicology. In: Hayes W, ed. Principles and methods of toxicology. 3rd edition. New York, NY: Raven Press, Ltd.
- *Krishnan K, Andersen ME, Clewell HJ, III, et al. 1994. Physiologically-based pharmacokinetic modeling of chemical mixtures. In: Yang RSA, ed. Toxicology of chemical mixtures. New York, NY: Academic Press.
- Kuran P, Sojak L. 1996. Environmental analysis of volatile organic compounds in water and sediment by gas chromatography. J Chromatogr 733:119-141.
- *Kuwata K, Uebori M, Yamazaki Y. 1980. Determination of phenol in polluted air as p-nitrobenzeneazophenol derivative by reversed phase high performance liquid chromatography. Anal Chem 52:857-860.

PHENOL 187 8. REFERENCES

- *KY Div. Water 1998. Domestic water supply use. Kentucky Division of Water, Environmental Protection Department. 401 KAR 5:031.
- *LA Air Qual. Div. 1998. louisiana toxic air pollutant ambient air standards. louisiana Air Quality Division, Department of Environmental Quality. Chapter 51, Subchapter A.
- *LA Water Res. Div. 1998. Surface water quality standards: Criteria. louisiana Water Resources Division, Department of Environmental Quality. Part IX, Ch 11 1113.
- Lai YW, Kemsley EK, Wilson RH. 1995. Quantitative analysis of potential adulterants of extra virgin olive oil using infrared spectroscopy. Food Chem 53: 95-98.
- *Langford CP, Barlett R, Haddad LM. 1998. Phenol and related agents. In: Haddad LM, Shannon MW, Winchester JF, eds. Poisoning and drug overdose, Philadelphia: W.B. Saunders Company.
- *Lee RF, Ryan C. 1979. Microbial degradation of organochlorine compounds in estuarine waters and sediments. In: Proceedings Workshop: Microb Degradation Pollut Mar Environ, 1978. Washington, DC: US. EPA, Office of Research and Development. EPA 600/9-79-012.
- *Leeder JS, Kearns, GL. 1997. Pharmacogenetics in pediatrics: Implications for practice. Ped Clin North America 44:55-77.
- Legathe A, Hoener B-A, Tozer TN. 1994. Pharmacokinetic interaction between benzene metabolites, phenol and hydroquinone, in B6C3Fl mice. Toxicol Appl Pharmacol 124:131-138.
- *Leuenberger C, Ligocki MP, Pankow JF. 1985. Trace organic compounds in rain. 4. Identities, concentrations and scavenging mechanisms for phenols in urban air and rain. Environ Sci Technol 19:1053-1058.
- *Leung H. 1993. Physiologically-based pharmacokinetic modeling. In: Ballantyne B, Marrs T, Turner P, eds. General and applied toxicology. Vol. I. New York, NY: Stockton Press, 153-164.
- *Lewin JF, Cleary WT. 1982. An accidental death caused by the absorption of phenol through skin. A case report. Forensic Sci Int 19:177-179.
- *Lewis RJ. 1996. Sax's dangerous properties of industrial materials. 9th ed. New York, NY: Van Nostrand Reinhold, 2630-2631.
- *Liao TF, Oehme FW. 1981. Tissue distribution and plasma protein binding of [14C] phenol in rats. Toxicol Appl Pharmacol 57:220-225.
- *Lide DR. 1993. CRC handbook of chemistry and physics. Boca Raton, FL: CRC Press, 3-376,6-60, 16-25.
- *Ling WH, Hanninen 0. 1991. Shifting from a conventional diet to an uncooked vegan diet reversibly alters fecal hydrolytic activities in humans. J Nutr 122:924-930.
- Liu YQ, Zhao B, Zhuang LH, et al. 1997. Path test reactions to the Chinese standard screening allergens in 1,135 patients investigated for allergic contact dermatitis. Am J Contact Dermat 8:141-143.

PHENOL 188 8. REFERENCES

Lo Dice C, Caplan YH, Levine B, et al. 1989. Phenol: Tissue distribution in a fatality. J Forensic Sci 34:1013-1015.

*lopez-Avila V, Northcutt R, Onstot J. et al. 1983. Determination of 51 priority organic compounds after extraction from standard reference materials. Anal Chem 55:881-889.

*Ludzack FJ, Ettinger MB. 1960. Chemical structures resistant to aerobic biochemical stabilization. J Water Pollut Control Fed 32:1173-1200.

*Lunte SM, Kissinger PT. 1983. Detection and identification of sulfhydryl conjugates of p-benzoquinone in microsomal incubations of benzene and phenol. Chem-Biol Interact 47: 195-212.

*Lyman WJ, Reehl WF, Rosenblatt DH. 1982. Handbook of chemical property estimation methods. Environmental behavior of organic compounds. New York, NY: McGraw-Hill Book Co, 15-9 to 15-31.

Mabey WR, Smith JH, Pod011 RT, et al. 1981. Aquatic fate process data for organic priority pollutants. Prepared for U.S. Environmental Protection Agency, Washington, DC. Prepared by SRI International, 247-248,434.

Machleidt H, Roth S, Seeman P. 1972. The hydrophobic expansio of erythrocyte membranes by phenol anesthetics. Biochim Biophys Acta 255:178-189.

MacPhail RC, Berman E, Elder JA, et al. 1995. A multidisciplinary approach to toxicological screening: IV. Comparison of results. J Toxicol Environ Health 45:211-220.

*MA Div. Air Qual. Con. 1998. Allowable ambient limit. Massachusetts Division of Air Quality Control, Department of Environmental Protection. MA General Law, C 142, Set A-E.

Makuch B, Gazda K, Kaminski M. 1993. Determination of phenol and monochlorophenols in water by reversed-phase liquid chromatography. Anal Chim Acta 284:53-58.

Marks JG, Belsito DV, DeLeo VA, et al. 1998. North American contact dermititis group patch test results for the detection of delayed-type hypersensitivity to tropical allergens. J Am Acad Dermatol 38:911-918.

Martinez D, Pocurull E, Marce RM, et al. 1996. Separation of eleven priority phenols by capillary zone electrophoresis with ultraviolet detection. J Chromatogr 734:367-373.

*McFadden SA. 1996. Phenotypicvariation in xenobiotic metabolism and adverse environmental response: Focus on sulfur-dependent detoxification pathways. Toxicology 111:43-65.

McGuire J, Hendee J. 1971. Biochemical basis for depigmentation of skin by phenolic germicides. J Invest Dermatol57:256-261.

Medinsky MA. 1995. The application of physiologically based pharmacokinetic/pharmacodynamic (PBPWPD) modeling to understanding the mechanism of action of hazardous substances. Toxicol Lett 79:185-191.

PHENOL 189 8. REFERENCES

- *Medinsky MA, Kenyon EM, Schlosser PM. 1995. Benzene: A case study in parent chemical and metabolite interactions. Toxicology 105:225-233.
- *Mehta R, Hirom PC, Millburn P. 1978. The influence of dose on the pattern of conjugation of phenol and 1-naphthol in nonhuman primates. Xenobiotica 8:445-452.
- *Merliss RR. 1972. Phenol marasmus. Occup Med 14:55-56
- Mill T. 1982. Hydrolysis and oxidation processes in the environment. Environ Toxicol Chem 1:135-141.
- *Mill T, Mabey W. 1985. Photodegradation in water. In: Neely WR, Blau GE, eds. Environmental exposure from chemicals Vol. 1. Boca Raton, FL: CRC Press, 208-211.
- Miller BM, Pujadas E, Gocke E. 1995. Evaluation of the micronucleus test *in vitro* using Chinese hamster cells: Results of four chemicals weakly positive in the *in vivo* micronucleus test. Environ Mol Mutagen 26:240-247.
- *Miller JJ, Powell GM, Olavesen AH, et al. 1976. The toxicity of dimethoxyphenol and related compounds in the cat. Toxicol Appl Pharmacol 3:47-57.
- Minor JL, Becker BA. 1971. A comparison of the teratogenic properties of sodium salicylate, sodium benzoate, and phenol. Toxicol Appl Pharmacol 19:373.
- *Miyagawa M, Takasawa H, Sugiyama A, et al. 1995. The *in vivo-in vitro* replicative DNA synthesis (RDS) test with hepatocytes prepared from male B6C3F, mice as an early prediction assay for putative nongenotoxic (Ames-negative) mouse hepatocarcinogens. Mutat Res 343:157-183.
- Mondy NI, Munshi CB. 1988. Chemical composition of the potato as affected by the herbicide, metribuzin: Enzymatic discoloration, phenols and ascorbic acid content. J Food Sci 53: 475-476.
- Moran KD, O'Reilly T, Munster AM. 1987. Chemical burns: A ten year experience. Am Surg 53:652-653.
- Morgan RJ, Steller PH. 1994. Acute paraplegia following intrathecal phenol block in the presence of occult epidural malignancy. Anaesthesia 49:142-144.
- *Morimoto K, Wolff S. 1980. Increase of sister chromatid exchanges and perturbations of cell division kinetics in human lymphocytes by benzene metabolites. Cancer Res 40: 118-1193.
- *Morimoto K, Wolff S, Koizumi A. 1983. Induction of sister-chromatid exchanges in human lymphocytes by microsomal activation of benzene metabolites. Mutat Res 119:355-360.
- *Morrison JE, Matthews D, Washington R, et al. 1991. Phenol motor point blocks in children: Plasma concentrations and cardiac dysrhythmias. Anesthesiology 75:359-362.
- *Morselli PL, France-Morselli R, Bossi L. 1980. Clinical pharmacokinetics in newborns and infants. Clin Pharmacokin 5:485-527.
- *Moser VC, Cheek BM, MacPhail RC. 1995. A multidisciplinary approach to toxicological screening: III. Neurobehavioral toxicity. J Toxicol Environ Health 45: 173-210.

PHENOL 190 8. REFERENCES

Moussavi M. 1979. Effect of polar substituents on autoxidation of phenols. Water Res 13:1125-1128.

*MO Water Pol. Con Pro. 1998. Water quality standards: Criteria for designated uses. Missouri Water Pollution Control Program, Division of Environmental Quality, Department of Natural Resources. lo CSR 20-7.031.

Mozingo DW, Smith AA, McManus WF, et al. 1988. Chemical burns. J Trauma 28:642-647.

- *MS Sur. Water Div. 1998. Water quality criteria for intrastate, interstate, and coastal waters. Mississippi Surface Water Division, Department of Environmental Quality. Set 3.
- *Mulder GJ, Scholtens E. 1977. Phenol sulphotransferase and uridine diphosphate glucuronyltransferase from rat liver *in vivo* and *in vitro*. Biochem J 165:553-559.
- *Murphy JC, Osterberg RE, Seabaugh VM, et al. 1982. Ocular irritancy responses to various pHs of acids and bases with and without irrigation. Toxicology 23:281-291.
- *Musto JD, Sane JN, Warner VD. 1977. Quantitative determination of phenol by high-pressure liquid chromatography. J Pharm Sci 66:1201-1202.
- *Nagel R, Adler HI, Rao TK. 1982. Induction of filamentation by mutagens and carcinogens in a lon-mutant of *Escherichia coli*. Mutat Res 105:309-312.
- Nanbo T. 1993. Influence of dietary lipids on glucuronidation and sulfation of phenol and its *para* substituent in the rat. Biol Pharm Bull 16:518-520.
- *Narotsky MG, Kavlock RJ. 1995. A multidisciplinary approach to toxicological screening: II, Developmental toxicity. J Toxicol Environ Health 45: 145-171.
- *NAS/NRC. 1989. Biologic markers in reproductive toxicology. National Academy of Sciences/National Research Council. Washington, DC: National Academy Press, 15-35.
- NATICH. 1994. National Air Toxics Information Clearinghouse: Data base report on acceptable ambient air concentration guidelines/standards concentrations, units, and averaging times report. US Environmental Protection Agency, Office of Air Quality Planning and Standards. Washington, DC.
- *NCI. 1980. Bioassay of phenol for possible carcinogenicity. Bethesda, MD: U.S. Department of Health and Human Services. National Cancer Institute. Technical Report Series No. NCI-CG-TR-203.
- *NCI. 1998. Cigars. Health effects and trends. Smoking and tobacco control monograph 9. National Cancer Institute, U.S. Department of Health and Human Services, Public Health Service, Bethesda, MD. NIH Pub. No. 98-4302.
- *ND Env. Health Sec. 1998a. Moderate toxicity air contaminants. North Dakota Environmental Health Section, State Department of Health and Consolitdated Laboratory. NDRSE33-24-01-04.
- *ND Env. Health Sec. 1998b. Specific standards of quality for designated classes of surface waters of the state. North Dakota Environmental Health Section, Department of Health. 33-16-02-06.

PHENOL 191 8. REFERENCES

- *Needham LL, Head SL, Cline RE. 1984. Determination of phenols and cresols in urine by gas chromatography. Anal Lett 17:1555-1565.
- Neta P, Schuler RH. 1975. Mode of reaction of 0- radical with aromatic systems. Radiat Res 64:233-236.
- *NH Air Res. Div. 1998. Toxic air pollutants: With toxicity classifications and ambient air limits. New Hampshre Air Resources Division, State Department of Environmental Services. NH Code Admin. R. Ann. Env-A 1300.1400.
- *NH Water Sup. Pol. Con. 1998. Water quality criteria for toxic substances. New Hampshire Water Supply and Pollution Control Division, Department of Environmental Services. Env-Ws 430.50.
- *Nicola RM, Branchflower R, Pierce D. 1987. Chemical contaminants in bottomfish. J Environ Health 49:342-347.
- *Nieminen E, Heikkila P. 1986. Simultaneous determination of phenol, cresols and xylenols in workplace air, using a polystyrene-divinylbenzene column and electrochemical detection. J Chromatogr 360:271-278.
- NIOSH. 1976. Criteria for a recommended standard occupational exposure: Phenol. National Institute for Occupational Safety and Health. DHEW Pub 76-196.
- *NIOSH. 1984. Health hazard evaluation report No. HETA 82-053-1236. Bay Area Hospital, Coos Bay, OR. National Institute for Occupational Safety and Health. NTIS PB84-210525.
- NIOSH. 1988. National Occupational Exposure Survey (NOES) as of May 10,1988. National Institute for Occupational Safety and Health. Cincinnati, OH.
- *NIOSH. 1994. NIOSH manual of analytical methods. 4th ed. U.S. Department of Health and Human Services, Centers for Disease Control, National Institute for Occupational Safety and Health. Cincinnati, OH.
- *NIOSH. 1997. National Institute for Occupational Safety and Health pocket guide to chemical hazards. Washington, DC: Department of Health and Human Services, 248-249.
- *NOES. 1990. National Occupational Exposure Survey. Cincinnati, OH: U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health.
- *NRC. 1993. Pesticides in the diets of infants and children. National Research Council, Washington DC: National Academy Press.
- *NTDB. 1996. National Trade Data Bank: The export connection. U.S. Department of Commerce Economics and Statistics Administration, Washington, DC.
- *NV Water Res. Div. 1998. Standards for toxic materials applicable to designated waters. Nevada Water Resources Division, Department of Conservation and Natural Resources. NAC 445A.144.
- *NY Div. Air Res. 1998. Moderate toxicity air contaminants. New York Division of Air Resources, Department of Environmental Conservation. NY Air Guide 1.

PHENOL 192 8. REFERENCES

- Oehm FW, Davis LE. 1970. The comparative toxicity and biotransformation of phenol. Toxicol Appl Pharmacol 17:283ff.
- Ogata M, Yamasaki Y, Kawai. 1986. Signficance of urinary phenyl sulfate and phenylglucuronide as indices of exposure to phenol. Int Arch Occup Environ Health 58 197-202.
- *O'Grodnick JS, Dupre GD, Gulizia BJ, et al. 1983. Determination of benzene, phenol, catechol and hydroquinone in whole blood of rats and mice. J Chromatog Sci 21:289-292.
- *OHM/TADS. 1988. Oral and Hazardous Material Technical Data System. On-line database.
- *OHM/TADS. 1998. Oil and Hazardous Materials/Technical Assistance Data System. Baltimore, MD: Chemical Information System, Inc. May 12, 1998.
- *Ohtsuji H, Ikeda M. 1972. Quantitative relation between atmospheric phenol vapor and phenol in the urine of workers in Bakelite factories. Br J Ind Med 29:70-73.
- *OK Water Qual. Div. 1998. Beneficial uses and criteria: Public and private water supplies. Oklahoma Water Quality Division, Water Resources Board. 785:45-5-10.
- *OSHA. 1997. Table Z-l limits for air contaminants. U.S. Department of Labor, Occupational Safety & Health Administration. Code of Federal Regulations. 29 CFR 1910.1000.
- *OTA. 1990. Neurotoxicology: Identifying and controlling poisons of the nervous system. Office of Technology Assessment, Washington, DC. OTA-BA-438.
- Otsuka M, Nonomura Y. 1963. The action of phenolic substances on motor nerve endings. J Pharmacol Exp Ther 140:41-45.
- *Owen GM, Brozek J. 1966. Influence of age, sex, and nutrition on body composition during childhood and adolescence. In: Falkner, ed. Human development. Philadelphia, PA: Saunders, 222-238.
- *PA Bureau Water Sup. Corn. Health 1998. Water quality toxics management strategy- Statement of policy: Water quality criteria for toxic substances. Pennsylvania Bureau of Water Supply and Community Health, Department of Environmental Resources. PARti25\ptI/spA\atII\ch16\shB\se16.102(b).
- *Painter RB, Howard R. 1982. The HeLa DNA-synthesis inhibition test as a rapid screen for mutagenic carcinogens. Mutat Res 92:427-437.
- *Parkhurst BR, Bradshaw AS, Forte JL, et al. 1979. An evaluation of the acute toxicity to aquatic biota of a coal conversion effluent and its major components. Bull Environ Contam Toxicol 23:349-356.
- *Paschin YV, Bahitova LM. 1982. Mutagenicity of benzo[a]pyrene and the antioxidant phenol at the HGPRT locus of V79 Chinese hamster cells. Mutat Res 104:389-393.
- *Pashin YV, Bakhitova LM, Ben&hen TI. 1987. Dependence of antimutagenic activity of simple phenols on the number of hydroxyl groups. Exp Genet 1121-1 125.

PHENOL 193 8. REFERENCES

- *Paterson B, Cowie CE, Jackson PE. 1996. Determination of phenols in environmental waters using liquid chromatography with electrochemical detection. J Chromatogr 731:95-102.
- *Patrick E, Maibach HI, Burkhalter A. 1985. Mechanisms of chemically induced skin irritation. I. Studies of time course, dose response, and components of inflammation in the laboratory mouse. Toxicol Appl Pharmacol 81:476-490.
- *PDR. 1998. Physicians desk reference: For nonprescription drugs. 19th Edition. Montvale, NJ: Medical Economics Company, 766.
- *Pellack-Walker P, Blumer JL. 1986. DNA damage in L5178YS cells following exposure to benzene metabolites. Mol Pharmacol 39:42-47.
- Pendergrass SM. 1994. An alternative method for the analysis of phenol and o-, *m*-, and p-cresol by capillary GC/FID. Am Ind Hyg Assoc J 55:1051-1054.
- *Perkins MA, Osborne R, Johnson GR. 1996. Development of an *in vitro* method for skin corrosion testing. Fundam Appl Toxicol 31:9-18.
- *Petrasek AC, Kugelman II, Austern BM, et al. 1983. Fate of toxic organic compounds in wastewater treatment plants. J Water Pollut Control Fed 55:1286-1296.
- *Pfeffer FM. 1979. The 1977 screening survey for measurement of organic priority pollutants in petroleum refinery wastewaters. ASTM Spec Tech Publ, 181-190.
- *Piotrowski JK. 197 1. Evaluation of exposure to phenol: Absorption of phenol vapor in the lungs through the skin and excretion of phenol in urine. Br J Ind Med 28:172-178.
- *Plumb RH Jr. 1987. A comparison of ground water monitoring data from CERCLA and RCRA sites. Ground Water Monit Rev 7:94-100.
- Pocurull E, Marce RM, Borrull F. 1996. Determination of phenolic compounds in natural waters by liquid chromatography with ultraviolet and electrochemical detection after on-line trace enrichment. J Chromatogr 738:1-9.
- *Poirier MC, DeCicco BT, Lieberman MW. 1975. Nonspecific inhibition of DNA repair synthesis by tumor promotors in human diploid fibroblasts damage with N-acetoxy-2-acetylaminofluorene. Cancer Res 35:1392-1397.
- *Pool PL, Lin PZ. 1982. Mutagenicity testing in the *Salmonella typhimurium* assay of phenolic compounds and phenolic fractions obtained from smokehouse smoke condensates. Food Chem Toxicol 29:383-391.
- *Popp W, Rauscher D, Muller G et al. 1994. Concentrations of benzene in blood and S-phenylmercapturic acid and t, t-muconic acid in urine in car mechanics. Int Arch Occup Environ Health 66: 1-6.
- *Powell GM, Miller JJ, Olavesen AH, et al. 1974. Liver as major organ of phenol detoxification. Nature (London) 252:234-235.

PHENOL 194 8. REFERENCES

- *Powlowski 9, Shingler V. 1994. Genetics and biochemistry of phenol degradation by *Pseudomonas* sp. CF600. Biodegradation 51:219-236.
- Puig D, Barcelo D. 1996. Comparison of different sorbent materials for on-line liquid-solid extraction followed by liquid chromatographic determination of priority phenolic compounds in environmental waters. J Chromatogr 733:371-381.
- *Pullin TG, Pinkerton MN, Johnson RV, et al. 1978. Decontamination of the skin of swine following phenol exposure: A comparison of the relative efficacy of water versus polyethylene glycol/industrial methylated spirits. Toxicol Appl Pharmacol 43:199-206.
- *Quebbemann AJ, Anders MW. 1973. Renal tubular conjugation and excretion of phenol and p-nitrophenol in the chicken: Differing mechanisms of renal transfer. J Pharmacol Exp Ther 184:695-708.
- *Quint U, Muller RT, Muller G. 1998. Characteristics of phenol: Instillation in intralesional tumor excision of shondroblastoma, osteoclastoma and enchondroma. Arch Orthop Trauma Surg 117:43-46.
- Quint U, Vanhofer U, Harstrick A, et al. 1996. Cytotoxicity of phenol to musculoskeletal tumors. J Bone Joint Surg Br 78:984-985.
- *Ramakrishna BS, Roberts-Thomson IC, Pannall PR, et al. 1991. Impaired sulphation of phenol by the colonic mucosa in quiescent and active ulcerative colitis. Gut 32:46-49.
- *Ramli JB, Wheldrake JF. 1981. Phenol conjugation in the desert hopping mouse, *Notomys alexis*. Comp Biochem Physiol 69C:379-381.
- *Reddy MV, Bleicher WT, Blackburn GR, et al. 1990. DNA adduction by phenol, hydroquinone, or benzoquinone *in vitro* but not *in vivo*: Nuclease Pl -enhanced "P-postlabeling of adducts as labeled nucleoside bisphosphates, dinucleotides and nucleoside monophosphates. Carcinogenesis 11: 1349-1357.
- Reighard TS, Olesik SV. 1996. Comparison of the extraction of phenolic and nitroaromatic pollutants using supercritical and enhanced-fluidity liquid methanol-CO₂ mixtures. J Chromatogr 737:233-242.
- Rice PJ, Drewes CD, Klubertanz TM, et al. 1997. Acute toxicity and behavioral effects of chlorpyrifos, permethrin, phenol, strychnine, and 2,4-dinitrophenol to 30-day-old Japanese Medaka (*Oryzias Zatipes*). Environ Toxicol Chem 16:696-704.
- *Rick DL, Licht CF, McCarty LP. 1982. Determination of phenol and pentachlorophenol in plasma and urine samples by gas liquid chromatography. J Anal Toxicol 6:297-300.
- Riddick JA, Bunger WB, Sakano TK. 1986. Techniques of chemistry. vol. II: Organic solvents: Physical properties and method of purification, 4th ed. New York NY: John-Wiley & Sons, 242-243.
- *RI Div. Water Res. 1998. Ambient water quality criteria for toxic pollutants. Rhode Island Division of Water Resources, Department of Environmental Management. RIRdpDEM\diDWR/rgWQ, Appendix B. Rogers SCF, Burrows D, Neill D. 1978. Percutaneous absorption of phenol and methyl alcohol in magenta paint. Br J Dermatol 98:559-560.

PHENOL 195 8. REFERENCES

Rosenman KD. 1984. Cardiovascular disease and workplace exposures. Arch Environ Health 39:218-224.

*RTECS. 1998. Registry of Toxic Effects of Chemical Substances. National Library of Medicine, Bethesda, MD. May 11, 1998.

*Rubin HE, Alexander M. 1983. Effect of nutrients on the rates of mineralization of trace concentrations of phenol and p-nitrophenol. Environ Sci Technol 17:104-107.

Rudensky B, Eidelman AI, Isacsohn M. 1980. Phenol and neonatal jaundice. Pediatrics 66:476-477. Sacan MT, Balcioglu IA. 1996. Prediction of the soil sorption coefficient of organic pollutants by the characteristic root index model. Chemosphere 32:1993-2001.

*Sadtler NA. 1960. Sadtler standard spectra. Philadelphia, PA: Sadtler Research Lab.

*Salaman MH, Glendenning OM. 1957. Tumor promotion in mouse skin by sclerosing agents. Br J Cancer 111434-444.

*Sandage C. 196 1. Tolerance criteria for continuous inhalation exposure to toxic material. I. Effects on animals of 90-day exposure to phenol, Ccl, and a mixture of indole, skatole, H,S and methyl mercaptan. Wright- Patterson Air Force Base, OH. U.S. Air Force systems command, Aeronautical Systems Division, ASD technical report 61-519(I).

*Sawahata T, Neal RA. 1983. Biotransformation of phenol to hydroquinone and catechol by rat liver microsomes. Mol Pharmacol 23:453-460.

*SC Bureau Air Qual. 1998. Toxic air pollutants with maximum allowable concentrations. South Carolina Bureau of Air Quality, Department of Health and Environmental Control. 24A SC Code Ann. Regs. 61-62.5 Standard 8.

*SC Div. Water Res. 1998. Water quality criteria for protection of human health. South Carolina Division of Water Resources, Department of Natural Resources. Ch. 61-68, Appendix 2.

*Schaltenbrand WE, Coburn SP. 1985. Determination of phenol and p- cresol in urine. Clin Chem 31:2042-2043.

Schardein JL. 1993. Food additives. In: Chemically induced birth defects. Mattawan, MI: International Research and Development Corporation, 2:58 l-97.

*Schlosser PM, Bond JA, Medinsky MA. 1993. Benzene and phenol metabolism by mouse and rat liver microsomes. Carcinogenesis 14:2477-2486.

*Schlosser PM, Kedderis GL, lovern MR, et al. 1998. Identification of benzene oxide: The missing link in benzene metabolism. CIIT Activities 18:1-8.

Schmidt R, Maibach H. 1981. Immediate and delayed onset "skip area" dermatitis presumed secondary to topical phenol exposure. Contact Dermatitis 7: 199-202.

PHENOL 196 8. REFERENCES

- *Schmidt SH, Hellstrom S. 1993. Phenol anesthesia of the tympanic membrane in purulent otitis media: A structural analysis in the rat. Eur Arch Otorhinolaryngol 249:470-472.
- *Schmidt SH, Anniko M, Hellstrom S. 1990. Electrophysiological effects of the clinically used local anesthetics lidocaine, lidocaine-prilocaine and phenol on the rat's inner ear. Eur Arch Otorhinolaryngol 248:87-94.
- Schoeters GER, Vander Plaetse F, Leppens H, et al. 1995. Haemopoietic and osteogenic toxicity testing in *vitro* using murine bone marrow cultures. *Toxicol In vitro* 9:421-428.
- *Schwartz CS, Snyder R, Kalf GF. 1985. The inhibition of mitochondrial DNA replication *in vitro* by the metabolites of benzene, hydroquinone and p-benzoquinone. Chem-Biol Interact 53:327-350.
- *Scott DO, Lunte CE. 1993. *In vivo* microdialysis sampling in the bile, blood, and liver of rats to study the disposition of phenol. Pharmaceutical Res 10:335-342.
- Scott HD, Wolf DC, Lavy TL. 1982. Apparent adsorption and degradation of phenol at low concentrations in soil. J Environ Quality 11: 107-111.
- *Scott HD, Wolf DC, Lavy TL. 1983. Adsorption and degradation of phenol at low concentrations in soil. J Environ Quality 12:91-95.
- *Scow K, Goyer M, Payne E, et al. 1981. Exposure and risk assessment for phenol (revised). Prepared for U.S. Environmental Protection Agency, Office of Water Regulations and Standards, Washington, DC, NTIS PB85-221695, 114-116.
- *Scully FE, Jr, Hoigne JR. 1987. Rate constants for reactions of singlet oxygen with phenols and other compounds in water. Chemosphere 16:681-694.
- *SD Office Drink. Water 1998. Secretary's certification of compliance with water quality standards: Toxic pollutant criteria. South Dakota Office of Drinking Water, Department of Environmental and Natural Resources. 74:5 1:01:65, Appendix B.
- Seaton MJ, Schlosser PM, Medinsky MA. 1995. 1n *vitro* conjugation of benzene metabolites by human liver: Potential influence of interindividual variability on benzene toxicity. Carcinogenesis 16: 1519- 1527. Segers JD, Zatz JL, Shah VP. 1997. *In vitro* release of phenol from ointment formulations. Pharm Technol 21:70-76. 80-81.
- *Semple KT, Cain RB. 1996. Biodegradation of phenols by the alga *Ochromonas dunica*. Appl Environ Microbial 62:1265-1273.
- *Setchell BP, Waites GMH. 1975. The blood testis barrier. In: Creep RO, Astwood EB, Greiger SR, eds. Handbook of physiology: Endocrinology V. Washington, DC: American Physiological Society.
- *Shafer KH, Cooke M, Deroos F, et al. 1981. WCOT capillary GC/FT-IR and GC/MS for identifying toxic organic pollutants. Appl Spectrosc 35:469-472.

PHENOL 197 8. REFERENCES

*Sheldon LS, Hites RA. 1978. Organic compounds in the Delaware River. Environ Sci Technol 12:1188-1194.

*Sheldon LS, Hites RA. 1979. Sources and movement of organic chemicals in the Delaware River. Environ Sci Technol 13:574-579.

Shen TT. 1982. Estimation of organic compound emissions from waste lagoons. J Air Pollut Control Assoc 32.79-82.

Singer PC, Gurol MD. 1983. Dynamics of the ozonation of phenol. I. Experimental observations. Water Res 17:1163-1171.

*Sithole BB, Williams DT, Lastoria C, et al. 1986. Determination of halogenated phenols in raw and potable water by selected ion gas chromatography-mass spectrometry. J Assoc Off Anal Chem 69:466-473.

*Skare JA, Schrotel KR. 1984. Alkaline elution of rat testicular DNA: Detection of DNA strand breaks after *in vivo* treatment with chemical mutagens. Mutat Res 130:283-294.

*Skowronski GA, Kadry AM, Turkall RM, et al. 1994. Soil decreases the dermal penetration of phenol in male pig *in vitro*. J Toxicol Environ Health 41:467-479.

Skvortsova NN, Vysochina IV. 1976. Changes in biochemical and physiological indices in animals produced by the combined effect of benzo[a]pyrene and phenol. Environ Health Perspect 13: 101-106.

*Spiller HA, Quandrani-Kushner DA, Cleveland P. 1993. A five year evaluation of acute exposures to phenol disinfectant (26%). J Toxicol Clin Toxicol 31:307-313.

*Sporns P. 1981. High pressure liquid chromatographic determination of phenol in honey. J Assoc Off Anal Chem 64:337-340.

SRI. 1988. 1988 Directory of chemical producers. United States of America. Menlo Park, CA.: SRI International. 839.

*Stajduhar-Caric Z. 1968. Acute phenol poisoning. Singular findings in a lethal case. J Forensic Med 15:41-42.

Staples CA, Werner A, Hoogheem T. 1985. Assessment of priority pollutant concentrations in the United States using STORET Database. Environ Toxicol Chem 4:131-142.

Starr JE, Judis J. 1968. Mechanism of action of phenolic disinfectants: 8. Association of phenolic disinfectants with proteins. J Pharm Sci 57:768-773.

*Steele RH, Wilhelm DL. 1966. The inflammatory reaction in chemical injury. I. Increased vascular permeability and erythema induced by various chemicals. Br J Exp Pathol 47:612-623.

Stich HF. 1991. The beneficial and hazardous effects of simple phenolic compounds. Mutat Res 259:307-324.

PHENOL 198 8. REFERENCES

- *Stornmel P, Muller G, Stucker W et al. 1989. Determination of S-phenylmercapturic acid in the urine- An improvement in the biological monitoring of benzene exposure. Carcinogenesis 10:279-282.
- *Stover EL, Kincannon DF. 1983. Biological treatability of specific organic compounds found in chemical industry wastewaters. J Water Pollut Control Fed 55:97-109.
- *Stuermer DH, Ng DJ, Morris CJ. 1982. Organic contaminants in groundwater near an underground coal gasification site in northeastern Wyoming. Environ Sci Technol 16:582-587.
- *Sturtevant FM. 1952. Studies on the mutagenicity of phenol in Drosophila melanogaster. J Hered 43:217-220.
- *Stutz DR, IJlin S. 1992. Hazardous materials injuries-a handbook for pre-hospital care. 3rd ed. Beltsville, MD: Bradford Communications Corp, 342-343.

Stuzin JM. 1998. Phenol peeling and the history of phenol peeling. Clin Plast Surg 25:1-19.

*Subrahmanyam VV, O'Brien PJ. 1985. Phenol oxidation products, formed by a peroxidase reaction, that bind to DNA. Xenobiotica 15:873-885.

Subrahmanyam VV, Doane-Setzer P, Steinmetz KL, et al. 1990a. Phenol-induced stimulation of hydroquinone bioactivation in mouse bone marrow *in vivo*: Possible implications in benzene myelotoxicity. Toxicology 62: 107-116.

Subrahmanyam VV, Kolachana P, Smith MT. 1990b. Effect of phenol and catechol on the kinetics of human myeloperoxidase-dependent hydroquinone metabolism. Adv Exp Med Biol283:377-381.

Subrahmanyam VV, McGirr LG, O'Brien PJ. 1990c. Peroxidase/hydrogen peroxide-or bone marrow homogenate/hydrogen peroxide-mediated activation of phenol and binding to protein. Xenobiotica 20: 1369-1378.

Subrahmanyam VV, Kolachana P, Smith MT. 1991. Hydroxylation of phenol to hydroquinone catalyzed by a human myeloperoxidase-superoxide complex: Possible implications in benzene-induced myelotoxicity. Free Radic Res Comms 15:285-296.

Sugimura T, Nagao M, Wakabayashi K. 1996. Carcinogenicity of food mutagens. Environ Health Perspect 104(Suppl3):429-433.

- *Suzuki T, Kisara K. 1985. Enhancement of phenol-induced tremor caused by central monoamine depletion. Pharmacol Biochem Behav 22:153-155.
- *Sze C-C, Shi C-Y, Ong C-N. 1996. Cytotoxicity and DNA strand breaks induced by benzene and its metabolites in Chinese Hamster ovary cells. J Appl Toxicol 16:259-264.

Tabak HH, Quave QZ, Mashni CI, et al. 1981. Biodegradability studies with organic priority pollutant compounds. J Water Pollut Contr Fed 53:1503-1518.

*Tang J, Jin QZ, Shen GH, et al. 1983. Isolation and identification of volatile compounds from fried chicken. J Agric Food Chem 31:1287-1292.

PHENOL 199 8. REFERENCES

- *Tesarova E, Packova V. 1983. Gas and high performance liquid chromatography of phenols. Chromatographia 17:269-284.
- *Thurman C. 1982. Phenol. In: Kirk-Othmer encyclopedia of chemical technology, 3rd ed., Vol 17. New York, NY: John Wiley and Sons, 373-384.
- *Thurman EM. 1985. Organic geochemistry of natural waters. Boston, MA: Martinus Nijhoff/Dr. W. Junk Publishers, 143-146.
- TiSler T, Zagorc-KonCan J. 1995. Relative sensitivity of some selected aquatic organisms to phenol. Bull Environ Contam Toxicol 54:717-723.
- *TN Water Pol. Con. 1998. Criteria for water uses. Tennessee Water Pollution Control, Department of Environment and Conservation. Ch. 1200-4-3.03.
- *Ton&ins BA, Jenkins RA, Griest WH, et al. 1984. Liquid chromatographic determination of phenol and cresols in total particulate matter of cigarette smoke. J Assoc Off Anal Chem 67:919-923.
- *Tremaine LM, Diamond GL, Quebbemann AJ. 1984. In viva quantification of renal glucuronide and sulfate conjugation of I-naphthol and p-nitrophenol in the rat. Biochem Pharmacol 33:419-427.
- *TRI96. 1998. Toxic Chemical Release Inventory. National Library of Medicine, National Toxicology Information Program, Bethesda, MD.
- Trincher RC, Rissing JP. 1983. Contamination of potable water by phenol from a solar water tank liner. Georgia. MMWR 32:493-4.
- *Truppman ES, Ellenby JD. 1979. Major electrocardiographic changes during chemical face peeling. Plast Reconstr Surg 63:44-48.
- Tsujimoto Y, Hashizume H, Yamazaki M. 1993. Superoxide radiacal scavenging activity of phebolic compounds. Int J Biochem 25:491-494.
- Tsutsui T, Hayashi N, Maizumi H, et al. 1997. Benzene-, catechol-, hydroquinone- and phenol-induced cell transformation, gene mutations, chromosome aberrations, aneuploidy, sister chromatid exchanges and unscheduled DNA synthesis in Syrian hamster embryo cells. Mutat Res 373:113-123.
- *USITC. 1987. Synthetic organic chemicals, United States production and sales, 1986. Washington, DC: U.S. Government Printing Office. Publication No. 2009, 26-27, 37, 41-42.
- *UT Div. Drink. Water 1998. Standards of quality for waters of the state: Numeric criteria. Utah Division of Drinking Water, Department of Environmental Quality. R317-2-14.
- *VA Dept. Env. Qual. 1998. Criteria for surface water. Virginia Department of Environmental Quality. VAC 25-260-140.
- *Van Duuren BL, Goldschmidt BM. 1976. Cocarcinogenic and tumor promoting agents in tobacco carcinogenesis. J Nat1 Cancer Inst 56:1237-1242.

PHENOL 200 8. REFERENCES

- *Van Duuren BL, Blazej T, Goldschmidt BM, et al. 197 1. Cocarcinogenesis studies on mouse skin and inhibition of tumor induction. J Nat1 Cancer Inst 46: 1039- 1044.
- *Van Duuren BL, Katz C, Goldschmidt BM. 1973. Cocarcinogenic agents in tobacco carcinogenesis. J Nat1 Cancer Inst 51:703-705.
- *Van Roosmalen PB, Purdham J, Drummond I. 1981. An improved method for the determination of phenol in the urine of workers exposed to benzene or phenol. Int Arch Qccup Environ Health 48:159-163.
- *Van Rossum P, Webb RG. 1978. Isolation of organic water pollutants by XAD resins and carbon. J Chromatogr 150:381-392.
- *Vernot EH, MacEwen JD, Haun CC, et al. 1977. Acute toxicity and skin corrosion data for some organic and inorganic compounds and aqueous solutions. Toxicol Appl Pharmacol 42:417-424.
- *Verschueren K. 1983. Handbook of environmental data on organic chemicals. 2nd ed. Van Nostrand Reinhold Co., NY. 973-982.
- *Vieira I, Sonnier M, Cresteil T. 1996. Developmental expression of CYP2El in the human liver: Hypermethylation control of gene expression during the neonatal period. Eur J Biochem 238:476-483.
- View Database. 1988. Agency for Toxic Substances and Disease Registry (ATSDR), Atlanta, Georgia: Office of External Affairs, Exposure and Disease Registry Branch, October 1988.
- *Van Oettingen WF, Sharpless NE 1946. The toxicity and toxic manifestations of 2,2-bis(p-chlorophenyl)- 1,1,1 -trichloroethane (DDT) as influenced by chemical changes in the molecule. J Pharmacol Exp Ther 88:400-413.
- *VT Air Pol. Control Div. 1998. Hazardous air contaminants believed to cause short-term irritant effects. Vermont Air Pollution Control Division, Department of Environmental Conservation, Natural Resources Agency. VT Code R. Section 5-261.
- *VT Water Qual. Div. 1998. Water quality criteria for the protection of human health. Vermont Water Quality Division, Department of Environmental Conservation, Agency of Natural Resources. Ch. 4, Appendix C.
- *WA Air Qual. Program. 1998. Toxic air pollutants and acceptable source impact levels. Washington Air Quality Program, Department of Ecology. Wash Admin Code Section 173-460.
- Wajon JE, Rosenblatt DH, Burrows EP. 1982. Oxidation of phenol and hydroquinone by chlorine dioxide. Environ Sci Technol 16:396-402.
- Walker N. 1954. Preliminary observations on the decomposition of chlorophenols in soil. Plant Soil 5:194-204.
- Wallin H, Morgenstern R. 1990. Activation of microsomal glutathione transferase activity by reactive intermediates formed during the metabolism of phenol. Chem-Biol Interact 75: 185-199.

PHENOL 201 8. REFERENCES

Wantke F, Focke M, Hemmer W, et al. 1996. Formaldehyde and phenol exposure during an anatomy dissection course: A possible source of IgE-mediated sensitization? Allergy 51:837-841.

Wantke F, Focke M, Hemmer W, et al. 1997. Formaldehyde and phenol exposure during 10 weeks of anatomy dissecting induction of IGE-mediated sensitization against formaldehyde [Abstract]. J Allergy Clin Immunol S78.

*Warner MA, Harper JV. 1985. Cardiac dysrhythmias associated with chemical peeling with phenol. Anesthesiology 62:366-367.

*Weitering JG, Kriggsheld KR, Mulder GJ. 1979. The availability of inorganic sulfate as a rate limiting factor in the sulfate conjugation of xenobiotics in the rat. Biochem Pharmacol 28:757-762.

Wengle B, Hellstron K. 1972. Volatile phenols in the serum of uraemic patients. Clin Sci 43:493-498. *West JR, Smith HW, Chasis H. 1948. Glomerular filtration rate, effective renal blood flow, and maximal tubular excretory capacity in infancy. J Ped 32a: 10-18.

*Wexler MR, Halon DA, Teitelbaum A, et al. 1984. The prevention of cardiac arrhythmias produced in an animal model by the topical application of a phenol preparation in common use for face peeling. Plast Reconstr Surg 73:595-598.

*Wheldrake JF, Baudinette RV, Hewitt S. 1978. The metabolism of phenol in desert rodent Notomys *alexis*. Comp Biochem Physiol 61C:103-107.

WHO. 1994. Environmental health criteria 161: Phenol, 2nd ed. World Health Organization, Geneva, Switzerland.

*Widdowson EM, Dickerson JWT. 1964. Chemical composition of the body. In: Comar CL, Bronner F, eds. Mineral metabolism: An advanced treatise, volume II, The elements part A. New York, NY: Academic Press.

*Wilcosky TC, Tyroler HA. 1983. Mortality from heart disease among workers exposed to solvents. J Occup Med 25:879-885.

*Wilmer JL, Burleson FG, Kayama F, et al. 1994. Cytokine induction in human epidermal keratinocytes exposed to contact irritants and its relation to chemical-induced inflammation in mouse skin. J Invest Dermatol 102:915-922.

Wilschut A, ten Berge WF, Robinson PJ, et al. 1995. Estimating skin permeation. The validation of five mathematical skin permeation models. Chemosphere 30:1275-1296.

Wood K. 1978. The use of phenol as a neurolytic agent: A review. Pain 5:205-229.

*Wynder E, Hoffmann D. 1961. A study of tobacco carcinogenesis. VIII The role of acidic fractions as promotors. Cancer 14:1306-1315.

*Wysowski DK, Flynt JW, Goldfield M, et al. 1978. Epidemic neonatal hyperbilirubinemia and use of a phenolic disinfectant detergent. Pediatrics 61: 165-170.

PHENOL 202 8. REFERENCES

*WY Water Qual. Div. 1998. Water quality criteria. Wyoming Water Quality Division, Department of Environmental Quality. Ch. 1, Appendix B.

*Xing B, McGill WB, Dudas MJ. 1994. Sorption of phenol by selected polymers: Isotherms, energetics, and polarity. Environ Sci Technol 28:466-473.

Yasuhara A, Shiraishi H, Tsuji M, et al. 1981. Analysis of organic substance in highly polluted river water by mass spectrometry. Environ Sci Technol 15:570-573.

Yonemitsu K, Tsunenari S, Kanda M. 1983. [An industrial accident due to Freon 113 poisoning. Toxicological analysis of the cause of death.] Nippon-Hoigaku-Zasshi 37:428. (Japanese)

*Young DR, Gossett RW, Baird RB, et al. 1983. Wastewater inputs and marine bioaccumulation of priority pollutants organics off southern California. In: Water Chlorination: Environ Impact Health Eff 4:871-884.

*Yrjanheikki E. 1978. A new method of personnel sampling and analyzing of phenol. Am Ind Hyg Assoc J 39:326-330.

*Zamponi GW, Ing D, French RJ. 1994. Arrhythmias during phenol therapies: A specific action on cardiac sodium channels? Circulation 89:914.

Zhao F, Mayura K, Hutchinson RW, et al. 1995. Developmental toxicity and structure-activity relationships of chlorophenols using human embryonic palatal mesenchymal cells. Toxicol Lett 78:35-42.

*Ziegler EE, Edwards BB, Jensen RL, et al. 1978. Absorption and retention of lead by infants. Pediatr Res 12:29-34.